

MAKR* PROCESS

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MAKR* is a fumigation process that uses a lower concentration of active ingredients in combination with a spray adjuvant that effectively eliminates the target pest. Currently, this fumigation process utilizes methyl bromide as the active ingredient and carbon dioxide as the spray adjuvant.

The carbon dioxide has a two-fold purpose. It acts to disperse the methyl bromide throughout the structure. Additionally, studies show that exposure to carbon dioxide increases the insects' respiration rate.

When insects breathe more rapidly, less active ingredients may be used to achieve control. Since the methyl bromide dosage is substantially reduced, the aeration period is also significantly reduced. CAL-EPA has granted a 24 hour aeration period in lieu of the standard 72 hour period. This aeration procedure is part of a special local need registration. Before being granted this special registration, the applicants had to submit studies to show the procedure was efficacious. They also had to complete field studies which confirmed that a 24 hour aeration period was sufficient.

Independent laboratory studies have been conducted by Dr. Rudolph Scheffrahn in Florida to study the synergism between methyl bromide and carbon dioxide. The MAKR* fumigation process was also tested in a field study conducted by Dr. Vernard Lewis of UC Berkeley. This study was sponsored by the Structural Pest Control Board, Department of Consumer Affairs in California.

In the past year, hundreds of structures have been fumigated in California using this process. This process has been well-received because it reduces the amount of methyl bromide emitted from the fumigation treatment area into the atmosphere. It also minimizes exposure to workers as well as reducing the off-site movement of methyl bromide.

For drywood termites, rates are reduced by 66 2/3%. Standard rates are 1.5 lbs of methyl bromide per CFM. MAKR* rates require .5 lbs of methyl bromide per CFM.

* MAKR is a trademark of Integrated Environments Ltd.

The MAKR* process is currently registered for structural fumigation in California, Texas and Florida. It is registered for commodity fumigation in California for pests such as Indian meal moth, confused flour beetle, rice and granary weevils, and other insects listed on the special registered label.

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